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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,175	11/01/2001	Peter H. Seeberger	MTV-018.02	7902
25181	7590	06/30/2004	EXAMINER KHARE, DEVESH	
FOLEY HOAG, LLP PATENT GROUP, WORLD TRADE CENTER WEST 155 SEAPORT BLVD BOSTON, MA 02110			ART UNIT 1623	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/033,175	SEEBERGER ET AL.	
	Examiner	Art Unit	
	Devesh Khare	1623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,23 and 42-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42-44 is/are allowed.
- 6) ☒ Claim(s) 1,23 and 45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

The amendment received 6/01/2004 has been entered in view of the RCE request. The terminal disclaimer filed over prior U.S. Patent no. 6,323,339 has been entered.

Claims 1,23 and 42-45 are before the examiner and an action on the merits of said claims is contained herein below.

**35 U.S.C. 103(a) rejection**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

Claims **1, 23 and 45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchwald et al. (Buchwald) (U.S. Patent No.6,693,178) of the applicants in view of Sabesan (U.S. Patent 5,095,123).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

The applicants' claims are directed toward optionally substituted glycosyl phosphate compounds of formula 1 and 2 (claims 1 and 45) wherein "O" is linked at C-1. Claims 1 and 45 differ in selecting R=aryl. Additional limitations include the compounds of claim 23 represented by the structures of glucose, galactose and lactose.

Buchwald teaches a compound represented by structures 53 and 54 in claims 1 and 9 wherein D represents an optionally substituted glycosyl moiety such as glucose or galactose linked at C-1 by M (M is equivalent to Y in the instant compounds) which represents "O". Claim 8 discloses various optionally substituted glucose, galactose and glucose containing disaccharide compounds. Furthermore, Buchwald discloses the compounds wherein the hydroxyl groups are protected with different substituted groups such as benzyl ether, benzyl carbamate, benzyl sulphonyl, and benzyl amines (Cols 4-10, Schemes 1-6). Buchwald differs from the present application in that it does not claim the glycosyl compounds phosphorylated at C-1.

Sabesan teaches the glycosyl phosphate compounds (see abstract and claims). In col.3, lines 42-65, the glycosyl phosphate triesters of formula I and II phosphorylated at C-1 are disclosed. The disclosure in col. 5, Reaction scheme 1, wherein compounds

obtained from the phosphorylation of hexopyranose compounds are disclosed, is within the scope of the instant claims 1 and 23. See especially the compounds disclosed in col. 9, examples 2, 3 and 5.

It would have been obvious to person having ordinary skill in the art at the time the invention was made, produce glycosyl compounds phosphorylated at C-1 having selected values for variables in the carbohydrate moiety and in the phosphate ester moiety from among those taught by Buchwald and Sabesan. The motivation for doing so is provided by Buchwald which suggests that such compounds were useful as glycosyl donors for the synthesis of complex molecules such as natural products, oligosaccharides a, or combinatorial libraries of one or both (see col.2, lines 19-22). Applicant has not demonstrated any criticality or unexpected result, which stems from selection of particular values for the variable.

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The rejection of claims **42-44** stated in the office action dated 03/06/2003 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 17-19 of U.S. Patent 6,323,339, has been overcome through applicants' terminal disclaimer filed over U.S. Patent no. 6,323,339.

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Devesh Khare whose telephone number is (703)605-

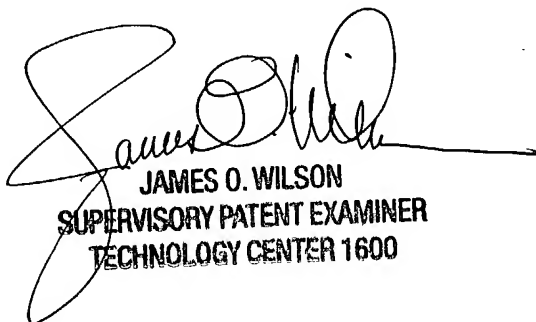
Art Unit: 1623

1199. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, Supervisory Patent Examiner, Art Unit 1623 can be reached at 703-308-4624. The official fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-4556 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Devesh Khare, Ph.D., J.D.  
Art Unit 1623  
June 18, 2004



**JAMES O. WILSON**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1600**